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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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7590

02/01/2005

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EXAMINER

AGUIRRECHEA, JAYDI A

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



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**MAILED**  
**FEB 1 2005**  
**GROUP 2800**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/520,149  
Filing Date: March 07, 2000  
Appellant(s): MURAKAMI ET AL.

\_\_\_\_\_  
W. Douglas Hahm  
For Appellant

**SUPPLEMENTAL  
EXAMINER'S ANSWER**

**MAILED**  
**FEB 1 2005**  
**GROUP 2800**

This is in response to the Remand of the Board on 11/30/04 and reply brief filed January 16, 2003.

***Response to Arguments***

1. Applicant's arguments filed on January 16, 2003 regarding independent claims 49-66 have been fully considered but they are not persuasive.

In response to applicant's argument that the Takahashi reference use *distributed* windings rather than *concentrated* windings, since it is known that one-piece stators generally utilize distributed windings, it is the examiner's position that the reference does not teach explicitly the use of distributed windings and, even though one-piece stators generally utilize distributed windings, it is not a rule and one cannot assure the use of either winding in the disclose motor. One with ordinary skill in the art would modify the concentrated winding machine of AAPA in view of the teachings of Takahashi since *both* references are directed to DC-brushless-permanent magnets motors and the benefits and teachings of the secondary reference would improve and increase the efficiency of the AAPA motor. Moreover, in US Patents 4134054 and 5682073 (to Akamatsu and Misuno, respectively) is shown the equivalence of concentrated and distributed windings in a one-piece stator.

In response to applicant's argument that the examiner has no basis for concluding that the depth (Lb) of each side edge of each tooth is a "result effective variable", it should be noted that the depth of the gaps and/or teeth are result effective variables that affect the efficiency of the electric machine. Evidence is disclosed in the Takahashi reference where they state that the air gap length is designed to raise coupling efficiency of the magnetic flux between the stator and the rotor (column 1, lines 46-50). Also, Takahashi discloses that the variation in magnetic flux density in the rotor is suppressed due to the air gap length (Column 5, lines 21-27), as well as a reduction of the heat generated in the rotor, therefore raising the efficiency of the machine.

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***Allowable Subject Matter***

2. Applicant's arguments, regarding Claims 67-71 have been fully considered and are persuasive. The rejection of these claims has been withdrawn.
3. Claims 67-71 are allowed.

***Conclusion***

As evidenced above, there are sufficient reasons to conclude that the depth of the teeth and the width of the gaps are result effective variables. Accordingly, it is the Examiner's position that the claims are properly rejected.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Jaydi Aguirrechea  
January 25, 2005

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